



(19)

(11) Publication number:

Generated Document.

## PATENT ABSTRACTS OF JAPAN

(21) Application number: 56131490

(51) Intl. Cl.: H01L 21/31 H01L 21/31

(22) Application date: 24.08.81

(30) Priority:

(43) Date of application  
publication: 28.02.83(84) Designated contracting  
states:(71) Applicant: HITACHI LTD  
HITACHI MICRO (C)  
LTD

(72) Inventor: ISHIDA MASAKATSU

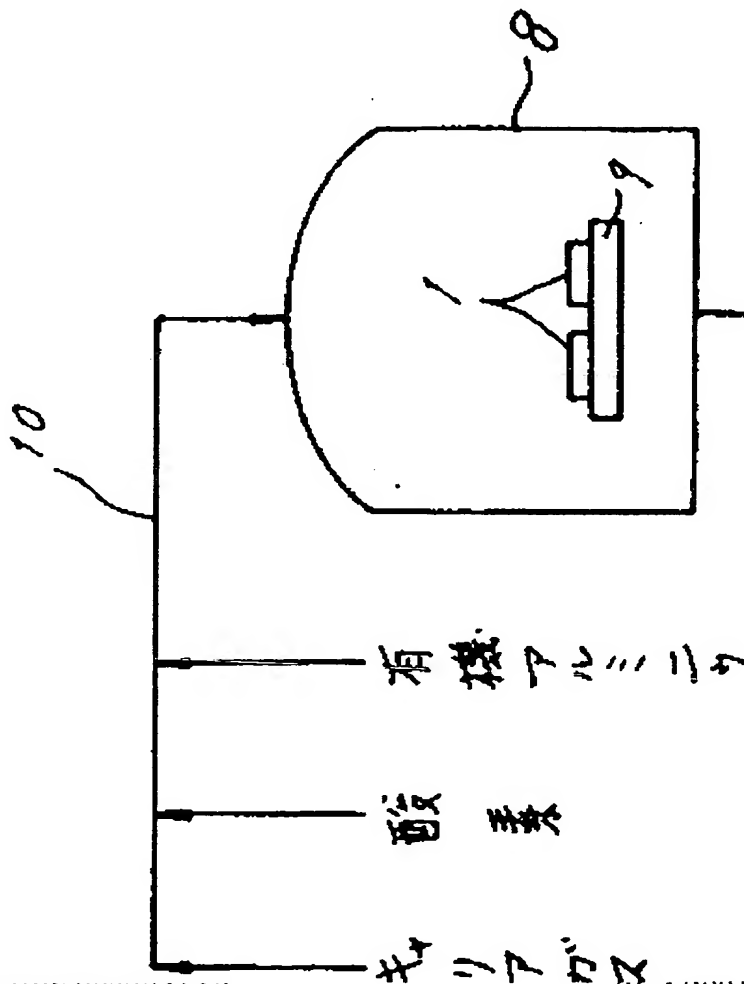
(74) Representative:

(54) SEMICONDUCTOR  
DEVICE

(57) Abstract:

**PURPOSE:** To simply and clearly form an oxidized aluminum film by forming the film by a chemical vapor growth using organic aluminum compound and oxidative gas.

**CONSTITUTION:** A semiconductor substrate 1 is set on a susceptor 9 in a reaction container 8. Reaction gas and carrier gas are supplied through a conduit 10 while heating the interior of the container 8 to the prescribed reaction temperature, and waste gas is exhausted from a conduit 11. The reaction gas to be used includes organic aluminum compound to become an aluminum supply source and oxidative gas such as oxygen or the like, and the carrier gas includes nitrogen or argon gas. An  $\text{Al}_2\text{O}_3$  film can be readily formed at a low temperature in the desired thickness merely by controlling by this reaction device the reaction conditions such as reaction gas flow rate and the like.



COPYRIGHT: (C)1983,JPO&amp;Japio

<http://www.delphion.com/cgi-bin/viewpat.cmd/JP58033841A2>

26.4.2001

1/1 - (C) PAJ / JPO

PN - ---JP58033841--- A 19830228

AP - JP19810131490 19810824

PA - HITACHI SEISAKUSHO KK; others: 01

IN - ISHIDA MASAKATSU

I - H01L21/31 ; H01L21/312 ; H01L21/316

TI - SEMICONDUCTOR DEVICE

AB - PURPOSE: To simply and clearly form an oxidized aluminum film by forming the film by a chemical vapor growth using organic aluminum compound and oxidative gas.

- CONSTITUTION: A semiconductor substrate 1 is set on a susceptor 9 in a reaction container 8. Reaction gas and carrier gas are supplied through a conduit 10 while heating the interior of the container 8 to the prescribed reaction temperature, and waste gas is exhausted from a conduit 11. The reaction gas to be used includes organic aluminum compound to become an aluminum supply source and oxidative gas such as oxygen or the like, and the carrier gas includes nitrogen or argon gas. An  $\text{Al}_2\text{O}_3$  film can be readily formed at a low temperature in the desired thickness merely by controlling by this reaction device the reaction conditions such as reaction gas flow rate and the like.

GR - E176

ABV - 007115

ABD - 19830519